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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,046	11/16/2006	Volker Kronseder	30051/42015	5032

4743 7590 06/08/2009
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EXAMINER

HARP, WILLIAM RAY

ART UNIT	PAPER NUMBER
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3651

MAIL DATE	DELIVERY MODE
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06/08/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/588,046	Applicant(s) KRONSEDER ET AL.	
	Examiner William R. Harp	Art Unit 3651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16, 19, 20, 23-30, 33, 34, 36-39, 41-43, 45, 46 and 49-51 is/are rejected.
- 7) ☐ Claim(s) 17, 18, 21, 31, 32, 35, 40, 44, 47, 48, 52 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/16/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) was submitted on January 16, 2009. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner. However, the examiner notes that the U.S. Patent Documents lined through are not being considered because they were cited by the examiner on Form PTO-892 in the previous Office Action. The Non-Patent Literature documents that are lined through are not considered because they do not have a publication date.

Response to Amendment

2. Examiner acknowledges the amendment to the claims entered March 20, 2009 in response to a Non-final Office Action mailed November 21, 2008.
3. Claims 1-52 are pending. Claim(s) 1-50 and 52 is/are currently amended.
4. Examiner acknowledges the amendment to the specification entered March 20, 2009 in response to a Non-final Office Action mailed November 21, 2009.
5. The examiner hereby withdraws the previously presented drawing objections.
6. The examiner hereby withdraws the previously presented claim objection and claim rejections under 35 U.S.C. 112.

Response to Arguments

7. Applicant's arguments filed March 20, 2009 have been fully considered but they are not persuasive. Applicant argues [Page 3 of Remarks] that combining the Wipf and '820 references would render the Wipf device inoperable. However, '820 teaches [Para 28] that the device will be susceptible of adaptation to any plant for the treatment of articles and to modify the grippers

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and recesses for the specific article being conveyed. Both Wipf and '820 teach devices for dynamic storage of objects, and one of ordinary skill would have found it obvious to combine the references, rearranging the elements to achieve a working device.

8. Regarding Applicant's argument toward the Leemkuil reference, Leemkuil teaches, as broadly claimed, a movable guide roller, which is used to divert articles from a straight line path. One of ordinary skill would therefore find using such a guide roller to deflect a chain link from a straight line path.

9. The examiner maintains the previously presented rejections under 35 U.S.C. 103 as presented in the previous Office Action, and further presented below.

Claim Objections

10. Claim 48 recites the limitation "double lever" in Line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

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3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 1, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wipf (USPN 6591963) in view of EPO Document (EP 1295820 B1, hereafter '820).

14. Regarding Claims 1,4, and 6, Wipf teaches a device for dynamic storage of objects comprising: an endless flexible conveying means (1), a conveying strand (10, 10'), and idle strand (11, 11'), each having areas of variable length [C3, L19-24], a carriage (2) having a first deflection (21) and a second deflection (21'), a first and second drive device (4, two shown in Figure 1) which are independently driven at variable speeds [C3, L10-24]. Wipf further teaches an input station and an output stations [C2, L38-42]. Wipf fails to teach grippers. '820 teaches grippers (20) used in a temporary storage device. The grippers engage the necks of the containers [C3, L41-43]. '820 further teaches that the grippers are fixed [C3, L40-43], which is considered to be rigidly mounted. It would have been obvious to use grippers in a storage device to grip the articles being conveyed as is known in the art to convey objects having neck portions.

15. Claims 2, 3, 5, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wipf in view of '820 as applied to claim 1 above, and further in view of Pickel et al. (USPN 6354427).

16. Regarding Claims 2, 3, 5, and 49, Wipf in view of '820 teaches the limitations described above, fails to teach the operation of the grippers. Pickel et al. teaches grippers (6) that are controllable [C3, L16-19] and clamps (24), which the examiner also considers to be grippers, which are passive [C4, L18-29]. Pickel et al. further teaches the bottle is held in a form fitting manner and also by frictional engagement [C3, L9-15], which the examiner considers to be a

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positive lock and a friction lock. It would have been obvious to use passive or active grippers as a design consideration.

17. Claims 7-9 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wipf in view of '820 as applied to claim 1 above, and further in view of Santais et al. (USPN 5863571).

18. Regarding Claims 7-9 and 50, Wipf in view of '820 teaches the limitations described above. Wipf further teaches deflections (32) in the area of the input and output station, yet fails to teach movable grippers and structural units. Santais et al. teaches movable grippers (73, 74) that are combined to form a structural unit (72). Each structural unit is pivotable (around pivot pin 71) and, as illustrated in Figure 2, is pivoted through several positions. The structural units are arranged on extension arms (70). The structural units are pivotable to facilitate transfer of the objects [C7, L64-C8, L7]. It would have been obvious to arrange grippers in a pivotable structural unit to facilitate transportation of objects on the conveyor and transfer of objects to and from the conveyor. Further, it would have been obvious that the angular position of the structural units would be a design consideration with the level of ordinary skill.

19. Claims 10-13 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wipf in view of '820 as applied to claim 1 above, and further in view of Clopton (USPN 5076422).

20. Regarding Claims 10-13 and 51, Wipf teaches a link chain [C2, L35] and teaches a circular curve shape deflection in the area near the carriage. Wipf further teaches the conveyor frame (3) can be arranged vertically [C3, L4-7], yet fails to teach guide rollers and at least one guide rail. Clopton teaches a link chain with guide rollers (20, 22, 24, and 26) and parallel guide

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rails (62, 62A). It would have been obvious to use a link chain with guide rollers and guide rails as is known in the art.

21. Claims 14, 15, 19, 20, 23, 24, 28, 29, 33, 34, 36, 37, 41, 42, 45, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wipf in view of '820 and Clopton as applied to claim 10 above, and further in view of Leemkuil (USPN 5191959).

22. Regarding Claims 14, 28, and 41, Wipf in view of '820 and Clopton teaches the limitations described above. Clopton further teaches a plurality of chain links (as illustrated in Figure 8). Wipf in view of '820 and Clopton fails to teach a moveable guide roller. Leemkuil teaches a movable guide roller (35). It would have been obvious to use a moveable guide roller to maintain its position against the guide rail.

23. Regarding Claims 15, 19, 20, 29, 33, 34, 42, 45, and 46, Wipf in view of '820 and Clopton teaches the limitations described above, yet fails to teach a movable guide roller impinged by a spring element, a guide roller mounted by means of a bolt, or a guide roller coupled to a thrust block. Leemkuil teaches a movable guide roller (35) with a thrust block (37), which rides against a stationary guide rail (94). This arrangement allows the guide roller to move parallel to its rotation axis, while allowing the element (15) from being displaced vertically. Leemkuil teaches that the roller is mounted on the lower end of a shaft (22) [C3, L15-17]. It is well known that a bolt is used to secure elements together and therefore, could have been used to mount the roller to the shaft. It would have been obvious to use a moveable guide roller coupled to a thrust block and impinged by a spring element to allow for lateral motion of the conveyor chain.

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24. Regarding Claim 23 and 36, Wipf in view of '820 and Clopton teaches the limitations described above. Wipf further teaches guide arcs (as illustrated in Figure 1) on the carriage. Wipf further teaches [C3, L44-48] that the conveying means is released from the carrier elements for simplified deflection. It would have been obvious to engage and disengage the roller chain from the guide rails to facilitate deflection of the roller chain.

25. Regarding Claims 24 and 37, Wipf in view of '820 and Clopton teaches the limitations described above, yet fails to teach a slanted ramp. Leemkuil teaches a slanted ramp (94) working in cooperation with the thrust block (37). It would have been obvious to use a slanted ramp to facilitate deflection of the thrust block.

26. Claims 14, 16, 28, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wipf in view of '820 and Clopton as applied to claim 10 above, and further in view of Zurcher (US Pub 2002/0053499 A1).

27. Regarding Claims 14, 16, 28, and 30, Wipf in view of '820 and Clopton teaches the limitations described above, yet fails to teach a moveable guide roller connected by a pivotable lever. Zurcher teaches a movable guide roller (15) that is connected by a pivotable lever (210). It would have been obvious to use a pivotable lever along with a moveable guide roller to maintain contact between the roller and the guide rail.

28. Claims 25 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wipf in view of '820, Clopton, and Leemkuil as applied to claims 23 and 36 above, and further in view of Steeber et al. (USPN 6230874).

29. Regarding Claims 25 and 38, Wipf in view of '820, Clopton, and Leemkuil teaches the limitations described above. Wipf further teaches the deflections (21, 21') are arranged on a

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common frame (20), yet fails to teach pivoting and track rollers. Steeber et al. teaches a frame (30). The components of the frame are pivotally mounted to provide relative movement between the components as the frame moves through curves defined by the conveyors [C2, L47-64].

Steeber et al. further teaches bearing members (90) that ride in guide channels [C7, L34-36]. It would have been obvious to arrange the deflections in a pivotable manner on a frame along with rollers to facilitate deflection of the objects when the carriage moves through curved sections.

30. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wipf in view of '820 and Clopton as applied to claim 10 above, and further in view of Barth et al. (USPN 6394260).

31. Regarding Claim 27, Wipf in view of '820 and Clopton teaches the limitations described above yet fails to teach guide rails or parallel round rods. Barth et al. teaches guide rails (28, 30) that are parallel round rods (Figure 5). It would have been obvious to use parallel round rods as guide rails to facilitate transport of the objects through horizontal and vertical curves.

32. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wipf in view of '820, Clopton, and Leemkuil as applied to claim 28 above, and further in view of Fellner et al. (USPN 4513858).

33. Regarding Claim 39, Wipf in view of '820, Clopton, and Leemkuil teaches the limitations described above, yet fails to teach a tension element. Fellner et al. teaches an accumulator conveyor system. Fellner et al. further teaches a tensioning element (91T). Fellner et al. further teaches that it is important to prevent slack in the conveying means to ensure that the drive power is transmitted effectively [C5, L46-51]. It would have been obvious to use a tension element to ensure that the drive power is transmitted effectively.

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Allowable Subject Matter

34. Claims 17, 18, 21, 22, 31, 32, 35, 40, 44, 47, 48, and 52 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

35. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to anticipate or fairly suggest a pivoted lever detachable from a guide rail, a control device to reset the pivot lever, a pivotable double lever, double levers pivoted in a scissor-like manner, a snap-on connection or a ratchet.

Conclusion

36. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William R. Harp whose telephone number is (571) 270-5386.

The examiner can normally be reached on Monday - Thursday, 8:30 AM - 5:00 PM EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gene Crawford/
Supervisory Patent Examiner, Art Unit
3651

/W. R. H./
Examiner, Art Unit 3651